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HOUSEKEEPERS' CHAT

Wednesday, January 16, 1935.

(FOR BROADCAST USE ONLY)

Subject: "Odds and Ends." Information from the Weather Bureau and the Bureau of Animal Industry, U.S.D.A.

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Let's start the day by talking about the weather -- or rather, by hearing what a weather expert has to say about some of our weather ideas. According to J. B. Kincer of the United States Weather Bureau, man can do a lot of things but he can't do much about changing the weather. He can neither stop the rain from raining nor coax showers from an unwilling sky. But just the same, man has responsibility for some of the serious effects of last year's drought. He cultivated land that should never have been put under the plow and he allowed close grazing of range lands. These two paved the way for excessive soil erosion and for the severe dust storms that came when lack of moisture made huge tracts of ground dry and powdery. But climatologists believe that man can improve this situation by restoring native vegetation to the denuded land or by any device that will cut down the surface velocity of the wind and save moisture.

A good many of us have mistaken notions about the causes for last year's drought. One point that has been worrying a lot of us is about cultivation of land and its effect on the rainfall. Mr. Kincer clears this up. He says that expansion of the cultivated area was not to blame for lack of rainfall last summer. In fact, he says, in the early part of the century many people thought that the abundance of moisture in the Great Plains States came from sod breaking just as many people today think this is the cause of the drought. From 1900 to 1915, after an enormous increase in the seeding to small grains, many of the dryer parts of the West had more than normal precipitation. For example, the State of Nebraska has more than 20 inches above normal. But from January to August, 1934, Nebraska's rainfall was down to half the normal.

Another mistaken idea many people have had is that the drainage of small lakes, ponds and marshes cut down the amount of rainfall. Mr. Kincer says such drainage has no appreciable effect on precipitation. You see, getting enough moisture into the air is less than half the rain-making operation. There is nearly always enough moisture in it to produce substantial rains, if the other part of the operation -- getting the moisture out, is in good working order.

For instance, in July the air of southern California contains as much moisture as that of central New England. Yet New England averages 100 times as much rain as southern California in midsummer. Minnesota, though dotted with small lakes, has an annual precipitation 25 percent less than Iowa, hard by, with only a few lakes. Another good example is the rainfall in the State of Arkansas last

year. April, 1934, brought above-normal rains to western Arkansas while July brought only 4 percent of normal. Nevertheless, Arkansas actually had 86 percent more atmospheric moisture in July than in April.

Weather experts can cite many more examples to show that what halts precipitation is the failure of the second rather than the first rain-making process. To carry out this second phase, Nature condenses moisture out of the atmosphere by air mass movements -- an operation on a scale far too fast for man to emulate. Air from two main sources -- the Poles and the Tropics -- moves over the earth's surface in mass formation. Masses of polar origin are dense, heavy and relatively cold; those of tropical origin are warm and light. When an air mass of tropical origin, moving northward, comes in contact with a polar mass, being lighter, it naturally flows up over the opposing dense air, just as it would flow up the side of a mountain that might be in its path. As it rises, it expands, thus being cooled down to the point where it gives up its moisture.

Last summer it happened that no dense, cool polar air masses moved down from the north until the middle of August. Then a more normal movement began. This, along with more favorable air circulation farther south, brought drought-relieving showers over the interior states.

To sum it all up briefly, Mr. Kincer says that nature only can make drought but man can make it worse.

So much for weather news. Now for a few words of caution from the meat experts. We have frequently brought up the matter of thorough cooking of pork as a necessary health measure. Experts in the Bureau of Animal Industry are emphasizing this point right now because of a recent report of two people who became seriously ill and of one who died from eating a mixture of raw ground-up pork and beef. The meat came from a local butcher shop in a large eastern city. The cause of the illness and death was trichinosis, a disease caused by those small thread-worms which the scientists call trichinae. These parasites occur occasionally in the muscle tissue of pork. When human beings eat infested pork raw or only partly cooked, the parasites get free in the digestive tract where they grow and multiply. In time the new generation finds its way into the muscles of their human victims and produces the disease called trichinosis which may be exceedingly painful and long drawn out. In extreme cases, it causes death.

The experts say that we are in no danger whatsoever from pork in so far as this disease is concerned if we take care to cook it well -- to cook well all pork and all meat products that contain pork muscle tissue. Most people do not eat pork products raw but the habit is fairly common among some of the foreign-born inhabitants of our larger cities.

Pork is one of the most appetizing of foods. And, of course, only a very small proportion of the hogs in this country are infested with trichinae, but, nevertheless, anyone who eats raw or improperly cooked pork takes a dangerous chance. Cooking easily destroys these parasites and dead trichinae cannot produce trichinosis. So just remember the simple health precaution: "Cook all pork well done."

